

## ABSTRACT

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3 A process for removing contaminants from the products of a Fischer-Tropsch  
4 synthesis reaction, said contaminants comprising (i) particulates having an  
5 effective diameter of greater than 1 micron and (ii) at least 5 ppm of aluminum  
6 in aluminum-containing contaminants having an effective diameter of less  
7 than 1 micron, said process comprising the steps of (a) passing the products  
8 of the Fischer-Tropsch synthesis reaction through a first particulate removal  
9 zone capable of removing particulates having an effective diameter of greater  
10 than 1 micron; (b) collecting from the first particulate removal zone a  
11 substantially particulate free Fischer-Tropsch feed stream containing 5 ppm or  
12 more of aluminum in aluminum containing-contaminants having an effective  
13 diameter of less than about 1 micron; (c) contacting the substantially  
14 particulate free Fischer-Tropsch feed stream in up-flow mode with an  
15 aluminum active catalyst in a guard-bed under aluminum activating  
16 conditions, whereby a feed stream mixture is formed which comprises  
17 aluminum-containing particles having an effective diameter of more than  
18 1 micron in a Fischer-Tropsch hydrocarbon continuous phase; (d) passing the  
19 feed stream mixture through a second particulate removal zone capable of  
20 removing substantially all of the aluminum-containing particles formed in  
21 step (c); and (e) recovering from the second particulate removal zone a  
22 Fischer-Tropsch product containing less than about 5 ppm total aluminum.